Textile Exchange

Global Recycled Standard™

Global Recycled Standard

Implementation Manual 5.0

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Textile Exchange Global Recycled Standard Implementation Manual

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The GRS Implementation Manual 5.0 replaces GRS Implementation Manual 4.2 and is effective as of December 31, 2026.

English is the official language of the Global Recycled Standard. In any case of inconsistency between versions, reference shall be made to the English version.

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Urgent substantive revision to the Global Recycled Standard

This urgent substantive revision (GRS 5.0) is necessary to support accurate tracking of reclaimed material data. The introduction of the revised Reclaimed Material Declaration Form (RMDF) required corresponding updates to the standard. The revised RMDF helps document reclaimed materials entering the certified recycling supply chain by collecting key information in a structured format, improving consistency, and supporting the tracking of reclaimed materials from source to final products. As the current RMDF did not serve this purpose, it was important to replace it with the revised RMDF in order to mitigate risks of fraudulent activity related to reclaimed volumes.

While "reclaimed material" has, by default, been considered as claimed material, the standard now explicitly includes "reclaimed material" within its scope as a type of claimed material. This clarification ensures alignment with the updated RMDF and directly supports tracking of the reclaimed material. The updated Global Recycled Standard 5.0 does not constitute a broad revision of the Global Recycled Standard and is limited to the specific changes presented in the change log table below.

Given the multi-year phase-out timeline of Global Recycled Standard and transition to Materials Matter Standard, this revision requires the use of the revised RMDF from December 31, 2026.

Change Log from GRS Implementation Manual 4.2 to GRS Implementation Manual 5.0

Section	Subject	Change
	Foreword, Introduction and How to use this Document	Minor language changes such as change in Textile Exchange contact email and others
A1	Definitions	Change of the Textile Exchange contact email
A3.1b	Scope	Inclusion of the term "reclaimed material"
A4	Desired Outcome	"Reclaimed material" is included for clarity as it qualifies as claimed material along with other minor language changes
A4.1a	Material Recycling	Inclusion of the term "reclaimed material", along with other minor language changes
A4.1b	Material Recycling	Inclusion of the term "first certified entity"
A4.1biii	Material Recycling	Inclusion of reference to the revised Reclaimed Material Declaration Form (TE-MM-TEM 105), with other minor language changes

Section	Subject	Change
A4.1c	Material Recycling	Reference to the revised Reclaimed Material Declaration Form
Appendix A	Tools and Resources	Change of the Textile Exchange contact email
Appendix B	Reclaimed Material Supplier Agreement	Updated reference to Section A1 - Definitions
Appendix C	Reclaimed Material Supplier Form	Removed

Foreword

The *Global Recycle Standard* (GRS) was originally developed by Control Union Certifications (CU) in 2008 and ownership was passed to Textile Exchange January 1, 2011. The previous version of the standard, GRS 4.0, was released in 2017.

Textile Exchange also owns and administrates the *Content Claim Standard* (CCS), the *Recycled Claim Standard* (RCS), the *Organic Content Standard* (OCS), the *Responsible Down Standard* (RDS), the *Responsible Wool Standard* (RWS), among others. These standards are designed to ensure chain of custody for preferred materials, and to provide labeling tools for final product claims.

Textile Exchange's mission is to accelerate sustainable practices in the textile industry. This acceleration only happens when steps have been taken to ensure that actions taken toward sustainability result in real and meaningful change. This requires a strong understanding of the issues and a plan to substantiate the claims being made. Certification to a third-party standard accomplishes this.

Introduction

The *Global Recycled Standard* (GRS) is an international, voluntary, full product standard that sets requirements for third-party certification of Recycled Content, chain of custody, social and environmental practices, and chemical restrictions. The goal of the GRS is to increase use of Recycled materials in products and reduce/eliminate the harm caused by its production.

The objectives of the GRS are:

- Alignment of definitions across multiple applications.
- Track and trace Recycled input materials.
- Provide customers (brands and consumers) with a tool to make informed decisions.
- Reduce harmful impact of production to people and the environment.
- Provide assurance that materials in the final product are actually Recycled and processed more sustainably.
- Drive innovation in addressing quality issues in the use of Recycled materials.

The Global Recycled Standard is intended for use with any product that contains at least 20% Recycled Material. Each stage of production is required to be certified, beginning at the recycling stage and ending at the last seller in the final business-to-business transaction. Material Collection and Material Concentration sites are subject to self-declaration, document collection, and on-site visits.

The GRS does not address quality or legal compliance.

The GRS uses the ISO 14021 definition of Recycled Content, with interpretations based on the US Federal Trade Commission Green Guides; the intention is to comply with the most widely recognized and stringent definitions.

This is a voluntary standard that is not intended to replace the legal or regulatory requirements of any country. It is the responsibility of each operation to demonstrate compliance with all applicable laws and regulations related to marketing, labor, and business practices. Sellers of GRS products are advised to reference the allowed Recycled Content claims in the countries of sale, to ensure that they are meeting all legal product claim requirements.

You may submit feedback to the standard at any time; send to standards@textileexchange.org. Points of clarification may be incorporated into the GRS Implementation Manual at any time.

International Working Group Members

Steering Committee Members

Deepak Goel	Geetanjali Woollens Pvt. Ltd.
Jasmine Zhang	Intertek
RS Bala	Anandi Enterprises
Terry Turner	Unifi Manufacturing
Nicole Munoz	SCS Global Services
Mattias Bodin	H&M

Technical Group Members

Ashley Gill	Textile Exchange
Lee Tyler	Textile Exchange

Advisory Group Members

Karla Magruder	Fabrikology
Ben Mead	Hohenstein Institute America, Inc.
John Graebin	Deckers
Cyndi Rhoades	worn again
Chris Chung	JanSport
Dr. Pierfrancesco Fois	ETAD - Ecological and Toxicological Association of Dyes and Organic Pigments Manufacturers
Abhishek Bansal	Arvind Limited
Kelsey Halling	Impact Thread
Paolo Foglia	ICEA
Aletta Westra	Dutch Central Government
Rahul Bhajekar	GOTS
Meredith Merritt	NSF Sustainability
Binay Choudhury	Control Union

How to use this Document

This document sets forth the overall requirements for compliance with the GRS. Guidance and clarifications are available in the *GRS Implementation Manual*.

In the GRS, the following verbal forms are used to indicate requirements, recommendations, permissions, or capabilities:

- "shall" indicates a requirement
- "should" indicates a recommendation
- "may" indicates a permission
- "can" indicates a possibility or capability

"Desired Outcomes" have been included to detail the intent of requirements, but they are not requirements themselves. They are designated by an icon before each module, see the following example:

DESIRED OUTCOME*:*
Example text. Why does this requirement exist?

Guidance Documents

The following guidance documents were used in the development and/or revision of this standard:

- ISO/IEC Directives, Part 2: Rules for the structure and drafting of International Standards
- ISO/IEC Guide 59: Code of Good Practice for Standardization
- ISEAL Code of Good Practice for Setting Social and Environmental Standards

Implementation Guidance

Guidance has been included following selected criteria of the standard. The guidance may provide clarification, interpretation guidance, or verification requirements for Certification Bodies.

Example:

> ***GUIDANCE**: Proof of "legal authorization to operate" is for example, a government-issued business license number or non-profit registration document. This ensures that there is a valid organization behind the declaration form, and to give an added measure of protection against the possible trading of stolen products. Where legal authorization is required to process waste, there shall be proof that this is in place.*

The Implementation Manual includes an additional section: Approved Recycled Content following Appendix D. To suggest additional materials or inquire about guidance, Certification Bodies may contact standards@textileexchange.org.

Section A – General Information

A1 – Definitions

The Content Claim Standard has a complete set of the terms used in Textile Exchange standards. The following are specific to the GRS, and are important in defining the verification requirements for the input materials for recycling:

Material Collection

Material Collection refers to the point in the recycling lifecycle when a Reclaimed Material is collected after its original use has ended (i.e., it would have otherwise gone into the waste stream).

Entities involved in Material Collection may include, but are not limited to:

- Individuals who collect Post-Consumer Materials for sale to brokers
- Government organizations (e.g., municipalities) that offer curbside recycling or operate transfer stations
- Brokers that purchase Pre/Post-Consumer Material from individuals, municipalities, or commercial operations for re-sale
- Commercial operations that collect their own Pre-Consumer Material from manufacturing operations
- Commercial operations that collect Post-Consumer Material (e.g., retail stores)

Material Concentration

Material Concentration refers to the point in the recycling lifecycle when a waste material receives primary handling. This may include, but is not limited to, sorting, screening, basic contaminant removal, or baling. Material is still unprocessed at this stage, meaning it has not been physically or chemically altered beyond basic handling (e.g., screening, crushing, or washing). Examples include:

- Government organization (e.g., municipality)
- Non-profit organization
- Business entity (e.g., brokers)

GUIDANCE: *Proof of "legal authorization to operate" is for example, a government-issued business license number or non-profit registration document. This ensures that there is a valid organization behind the declaration form, and to give an added measure of protection against the possible trading of stolen products. Where legal authorization is required to process waste, there shall be proof that this is in place.*

Material Recycling

Material Recycling refers to the point in the recycling lifecycle when a Reclaimed Material is processed into a Recycled Material.

Post-Consumer Material

Material generated by households or by commercial, industrial, and institutional facilities in their role as end-users of the product that can no longer be used for its intended purpose. This includes returns of materials from the distribution chain.[1]

GUIDANCE*: Examples of accepted Post-Consumer Material:*

- *Down from a previously owned down jacket or comforter.*
- *Garments collected and shredded into raw fiber.*
- *Reclaimed Materials collected from products that were returned without being used should be categorized as Pre-Consumer Material.*

Waste from post-consumer recycling activities may still be considered post-consumer after it is collected and recycled.

If any amount of pre-consumer material was blended with the post-consumer content, so that the percentage is uncertain, all waste should be considered as pre-consumer when recycled.

[1] This excerpt is taken from ISO 14021:1999, section 7.8.1.1, subsection a.2 on page 14, with the permission of ANSI on behalf of ISO. © ISO 2013 – All rights reserved.

Pre-Consumer Material

Material diverted from the waste stream during the manufacturing process. Excluded is the reutilization of materials such as rework, regrind or scrap generated in a process and capable of being reclaimed within the same process that generated it.[2]

***GUIDANCE**: Examples of accepted Pre-Consumer Material:*

- *A vertical mill collects cutting room waste, shreds the fabric, and respins the resulting fiber into yarn.*
- *A manufacturer produces carpet fibers from an extrusion process. During the manufacturing process, a defective carpet fiber is extruded. The defective fiber is collected, melted down, re-pelletized, and reused in the original manufacturing process as a raw material to produce the same carpet product.*
- *An auto manufacturer may scrap metal components such as door panels, underbody parts or an entire car if the product is defective. The metal scraps are collected and shipped to a local recycling group. The recycler then reprocesses the metal and uses it to produce different metal products.*
- *Any material collected as waste or byproduct from the processing of 100% Recycled Material may continue to be considered Recycled Material.*

Contact Textile Exchange (standards@textileexchange.org) if you would like to add examples to this list.

Pre-Consumer may sometimes be referred to as "post-industrial". UL has released a document titled: Interpreting Pre-Consumer Recycled Content Claims that provides helpful interpretation of Pre-Consumer Recycled Content. The FTC Green Guides[3] also includes helpful guidelines for understanding claims.

Reclaimed Material

Material that would have otherwise been disposed of as waste or used for energy recovery, but

[2] This excerpt is taken from ISO 14021:1999, section 7.8.1.1, subsection a.1 on page 14, with the permission of ANSI on behalf of ISO. © ISO 2013 – All rights reserved.

[3] Guides for the Use of Environmental Marketing Claims ("Green Guides"); Federal Trade Commission; October 12, 2012. http://www.ftc.gov.

has instead been collected and reclaimed as a material input, in lieu of new primary material, for a recycling process.[4]

> ***GUIDANCE:*** *The expressions "Recovered Material" and "Reclaimed Material" are treated as synonyms; however, it is recognized that, in some countries, one or other of these expressions may be preferred for this application. If your industry or your country uses different terminology, please contact standards@textileexchange.org for further clarification.*
>
> *We also recognize that it is difficult to substantiate that a material would have 'otherwise been disposed of as waste or used for energy recovery', as once a recycling process is established, the material is no longer being directed into a waste stream. See "Pre-Consumer Material" for further clarification.*

Recycled Content

Proportion, by mass, of Recycled Material in products or packaging. Only Pre-Consumer and Post-Consumer Materials shall be considered as Recycled Content.

> ***GUIDANCE:*** *Packaging is exempted from the requirements of the standard, unless the Recycled Material being claimed is part of the packaging.*

Recycled Material

Material that has been reprocessed from Reclaimed Material by means of a manufacturing process and made into a final product or into a component for incorporation into a product.[5]

[4] This excerpt is taken from ISO 14021:1999, section 7.8.1.1, subsection c on page 14, with the permission of ANSI on behalf of ISO. © ISO 2013 – All rights reserved.

[5] This excerpt is taken from ISO 14021:1999, section 7.8.1.1, subsection b on page 14, with the permission of ANSI on behalf of ISO. © ISO 2013 – All rights reserved.

GUIDANCE: *A Recycled Content claim may be made only for materials that have been recovered or otherwise diverted from the solid waste stream, either during the manufacturing process (Pre-Consumer), or after consumer use (Post-Consumer). Certification Bodies shall evaluate all materials listed on Reclaimed Material Declaration Forms or otherwise claimed as Recycled Material input to ensure that they meet the definition of Recycled Material. Any material that does not meet the definition for any reason shall not be certified by the GRS.*

In the above definition, "manufacturing process" shall refer to all steps related to a specific production stage. Waste collected from one step of a production stage that is put back into the same production stage shall not be considered Recycled Material.

- ***Example:*** *Waste from spinning may not be combed and then respun and considered Recycled, since it was collected within the same production stage. Down filling material collected from a Post-Consumer duvet, may be accepted since the washing and sorting required is a separate production stage.*

To the extent that the source of Recycled Content includes Pre-Consumer Material, the Material Recycler of the Recycled Material shall be able to justify that the Pre-Consumer Material would otherwise have entered the solid waste stream and/or meets the qualification for by-products listed in the definition for "Pre-Consumer Material". Both chemically and mechanically Recycled Material qualify for GRS certification.

In the US, the Federal Trade Commission, "Recycled Content includes Recycled raw material, as well as used, reconditioned, and re-manufactured components." (FTC 2012 Green Guide, 260.13.a) While materials that meet this definition may be considered as Recycled in the US, the narrower definition of "Recycled Material" listed above is used for the GRS.

Some material that has been collected from the waste stream may not qualify as Recycled Material due to the way it is used. ***Remake*** *or* ***Reuse*** *is Reclaimed Material that does not undergo an additional step before being used again. For example, fabric is collected from Post-Consumer garments and is sewn into new garments. This type of material may be identified and tracked within Certification to the GRS, but may not be identified or labeled as "Recycled" or with any reference to the GRS.*

Safety Data Sheet (SDS)
A document accompanying a chemical product that contains information on potential hazards (e.g. health, environmental) and how to work safely with the product.

The acronyms below are used throughout the Standard:

CCS: Content Claim Standard
GRS: Global Recycled Standard
CB: Certification Body
SC: Scope Certificate
TC: Transaction Certificate

A2 – References

A2.1 Accompanying Documents

The following additional documents are considered part of the Global Recycled Standard, and are fully binding:

- Content Claim Standard
- Content Claim Standard Implementation Manual
- Global Recycled Standard
- GRS Logo Use and Claims Guide
- Accreditation and Certification Procedures for Textile Exchange Standards
- Policy and Template for Issuing Certificates of Compliance (Scope Certificates, SCs)
- Scope Certificate Template
- Policy and Template for Issuing Transaction Certificates (TCs)
- Transaction Certificate Template
- Textile Exchange Accepted Equivalent Standards

All documents can be found at http://globalRecycled.org.

A2.2 Referenced Documents

The following referenced documents were used in the development of this standard:

- Textile Exchange Recycled Claim Standard
- Global Recycled Standard 4.0
- ZDHC Manufacturer's Restricted Substance List
- ZDHC MRSL Conformance Guidance
- GSCP Environmental Reference Requirements
- GSCP Social Reference Code
- ISO 14021:1999: Environmental labels and declarations
- ISO/IEC Directives, Part 2: Rules for the structure and drafting of International Standards

- ISO/IEC Guide 59: Code of Good Practice for Standardization
- Guides for the Use of Environmental Marketing Claims ("Green Guides"); Federal Trade Commission
- International Labor Organization Conventions
- European Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
- European Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
- Directive 67/548/EEC with adjustment to REACH according to Directive 2006/121/EC and Directive 1999/45/EC as amended
- Globally Harmonized System of Classification and Labelling of Chemicals (GHS), Fourth revised edition

A3 – Principles of GRS Certification

A3.1 Scope

A3.1a The Standard applies to products that contain 20% or more Recycled Content. Some exceptions may apply, see *Textile Exchange Accreditation and Certification Procedures* for the derogation process.

A3.1b The Standard applies to any verified Reclaimed Material and Recycled Material and may apply to any supply chain.

***GUIDANCE**: The Certification Body shall assess Claimed Material to ensure it qualifies as Reclaimed Material and Recycled Material, per A1 – Definitions. When compared with Post-Consumer Recycled Material, it is more difficult to determine whether a Reclaimed Material is Pre-Consumer Recycled Material, or simply resource efficiency.*

In the case of Pre-Consumer Recycled Material claims, Certification Bodies should understand the following to make their determination:

- *What is the process that generated the Material?*
- *In to what process is the Material now being used as input?*
- *What re-processing was required to allow the Reclaimed Material to be again used an input material?*

Certification Bodies shall evaluate the material against the definition of Recycled Material to verify the accuracy of material identification. Certification bodies shall use the following guidelines to determine whether the material is Recycled Material, or simply resource efficiency:

- *Reclaimed Material that is collected from a virgin manufacturing process and put back into the same process that generated it shall not be considered Recycled Material.*
- *Reclaimed Material that may be used in another supply stream with minimal processing should not be considered as Recycled Material since it is not "diverted from a waste stream."*
    - ***Example:** A byproduct generated from nylon spinning has long been used to make nylon buckles. Now, with increased demand for Recycled nylon, the material is now being re-melted and used to make nylon yarn. This may not be considered Recycled Material since it is not truly being diverted from the waste stream.*
- *Check the waste rates of the manufacturing process that generated the Reclaimed Material. If the waste rate is higher than industry averages, it may be a sign that the Reclaimed Material has been produced*

intentionally, and would therefore not qualify as Pre-Consumer Recycled Material.

- ***Example**: A spinning mill should not have a 50% waste rate.*

In the case that the auditor or certifier is unsure of whether a material qualifies as Recycled Material, they should contact Textile Exchange for a determination. Textile Exchange will consult with industry experts for decision-making in difficult cases, and will keep a log of past decisions.

Certified Organizations and Certification Bodies are both free to appeal a decision of Textile Exchange; please read the TE Standards Complaint Procedures, available online: https://textileexchange.org/complaint-form/.

A3.2 Scope

A3.2a The Standard provides verification of chain of custody for Recycled Material, in accordance with the Content Claim Standard.

A3.2b The Standard includes consumer-facing labeling; only products that have been certified up to the seller in the last business-to-business transaction are eligible.

Only products with at least 50% Recycled Content qualify for product-specific GRS labeling. See *GRS Logo Use and Claims Guide* for labeling guidelines.

A3.2c The Standard establishes criteria for social and environmental principles in processing GRS certified products.

A3.2d The Standard restricts the use of hazardous chemicals in the processing of GRS products; it does not address the chemicals present in the Reclaimed Materials or what may be present in final GRS products.

A4 – Recycled Material Requirements

DESIRED OUTCOME:

Claimed Material accepted for the standard meets the established definition of Reclaimed Material before recycling and Recycled Material during and after recycling.

GUIDANCE: *It is the responsibility of the Material Recycler to collect any required documentation from their direct suppliers, either Material Collector or Material Concentrator. Material Collectors or Material Concentrators may apply for GRS certification if desired, but they are not required.*

Verification of Reclaimed Material Suppliers

Material Collectors and/or Material Concentrators that supply directly to Certified Organizations are subject to additional verification by the Certification Body.

Certification Bodies shall conduct a risk assessment of all direct suppliers that conduct Material Collection or Concentration.

- *Certification bodies shall keep a list of all collectors and concentrators that supply to recycling clients. 10% of this total shall be chosen for additional verification, with 2% chosen for physical inspection.*
- *Certification Bodies should make an effort to avoid inspection of the same sites from one year to the next, if possible.*

Direct verification of Material Collectors and Material Concentrators should seek to verify the authenticity of the Reclaimed Material Declaration Form as well as the following information:

- *That all Claimed Material meets the definition of Reclaimed Material (A1).*
- *That all Claimed Material is properly identified as Pre-Consumer or Post-Consumer Material (A1).*
- *That the source of all Claimed Material is reviewed.*

Textile Exchange will not collect fees from inspections of Material Collectors or Material Concentrators.

The 10% additional verification could include the following:

- *Additional Material Declaration Form review remotely in communication with Material Collectors and Concentrators.*
- *Research the supplier online to verify they are a legal business supplying the reclaimed material.*
- *Communicate directly with the Material Collectors and Concentrators (e.g. email, phone).*
- *On-site visit of Material Collectors and Concentrators (the 2% is included within the 10%).*
    - *Ask for a basic tour of operations, interview for confirmation of material sources. We are looking for reasonable confirmation that the MDF is accurate.*

Risk factors should include, but are not limited to

- *Use of Pre-Consumer Material as input*
- *Facilities with high volumes of input material into GRS Material Recycling facilities*
- *Inconsistencies in documentation.*

***EXEMPTION**: CBs may exempt government owned/operated collector or concentrator entities (i.e. municipality) or donation-only collector or concentrator from the requirement of Reclaimed Materials Supplier Agreement.*

This does not exempt the CB from the 10% additional checks or 2% On-Site visits.

The Materials Declaration Form is still required to be collected from these collectors.

A4.1 Material Recycling

A4.1a Entities involved in Material Recycling (as defined in A1) are subject to GRS certification. The GRS requires compliance with the requirements of the Content Claim Standard, whereby the 'Claimed Material' is replaced with 'Reclaimed Material' before recycling and 'Recycled Material' during and after recycling as defined in section A1.

A4.1b In addition, the first certified entity in a recycling supply chain (collector, concentrator, or recycler), shall:

i. Verify that all sources of Reclaimed Material have legal authorization to operate for the relevant function, and hold copies of the relevant documents.

***GUIDANCE**: Prior to the initial audit, the Material Recycler should submit a list of all sources of Reclaimed Material to their CB. This allows the CBs time to verify legal authorization of the entities involved in Material Collection and Concentration to operate as well as to assess any areas of risk.*

The reference to "all sources of Reclaimed Material" does not include Material Collection from individuals.

ii. Hold valid Reclaimed Material Supplier Agreements (see Appendix B) for all suppliers of Reclaimed Material (entities involved in Material Collection and/or Material Concentration).

iii. Collect and retain completed Reclaimed Material Declaration Forms from their suppliers for all Reclaimed Material inputs. For more details on the Reclaimed Material Declaration Forms collection timeline, please refer to the Introduction & Instructions section of the TE-MM-TEM-105 Reclaimed Material Declaration Form.

***GUIDANCE**: If the Reclaimed Materials have been verified through an approved equivalent standard, then those Reclaimed Materials will be accepted for the GRS, as long as all related documentation is submitted to the Material Recycling facility and the Certification Body.*

Accepted equivalent standards are those that have been approved by Textile Exchange and meet or exceed the requirements of the GRS for verification of Reclaimed Materials (i.e. verification that they would have otherwise gone into the waste stream). See Textile Exchange Accepted Equivalent Standards. To be considered for equivalency, standards may be submitted to Textile Exchange at standards@textileexchange.org.

iv. Inspect all incoming shipments of Reclaimed Material to confirm that they are not virgin material; confirm the correct identification as Pre- or Post-Consumer. Retain records of inspections.

***GUIDANCE:** Virgin material shall be defined as any material that does not meet the definition of "Recycled Material" given in A1. Staff receiving Reclaimed Materials shall be trained and directed to identify any material that is or could be virgin material.*

In the case that virgin material is identified or incorrectly labeled as Pre- or Post-Consumer, increased control measures shall be applied for all incoming products from the supplier involved, and the supplier of the material and the Certification Body shall be notified.

If virgin material is suspected or identified, it shall be immediately removed from the Reclaimed Materials stock until further investigation confirms its identity. In all cases of virgin material, the CB shall be informed, and it will be at their discretion to conduct further investigation with the supplier.

v. Request Transaction Certificates for all outgoing GRS certified products.

A4.1c Material Recyclers who collect Reclaimed Material from their own processing shall retain the following records to verify their volume of recycling:

i. Records of all materials entering the recycling process.
ii. Description of Reclaimed Material and the stage where the waste was collected.
iii. Any other relevant transfer notes.
iv. The TE-MM-TEM-105 Reclaimed Material Declaration Form may be used in lieu of the records listed above .

***GUIDANCE**: Material Recyclers that process and recycle Reclaimed Material from their own processes may present higher risk for fraudulent or inaccurate identification of material as Recycled. Certification Bodies shall evaluate the material against the definition of Recycled Material to verify the accuracy of material identification. (See A1 – Definitions "Pre-Consumer Recycled Material" for additional guidance).*

A5 – Supply Chain Requirements

DESIRED OUTCOME:

Claimed Recycled Material follows a complete, verified chain of custody from input to final product.

A5.1 Application of Production Requirements

Organizations involved in production and trade of GRS products are subject to GRS certification. The Global Recycled Standard requires compliance with the requirements of the Content Claim Standard, whereby the 'Claimed Material' is replaced with 'GRS Material'.

A5.2 Production and Trade

In addition to the requirements of the CCS, all organizations involved in the production or trade of GRS products shall meet the following requirements:

A5.2a All Recycled materials entering the supply chain shall have a valid Transaction Certificate (TC) issued by an approved CB.

A5.2b Pre-Consumer and Post-Consumer Material Content percentage shall be recorded separately for each batch at every certified site and recorded on the transaction certificate.

GUIDANCE: *While the labeling requirements of the GRS do not require Pre- and Post-Consumer amounts to be identified separately (in accordance with the FTC Green Guides), it is often not possible for the companies involved in the production of GRS products to know how the final product will be labeled, or if they will want the information for their own use.*

A5.2c Traders with an annual turnover of less than $10,000 of GRS products, and retailers selling to end consumers only, are exempt from the certification obligation; provided that they do not (re-) pack or (re-) label GRS products. Exempted traders with less than $10,000 annual turnover of GRS products shall register with an approved Certification Body and shall inform the Certification Body immediately once their annual turnover exceeds $10,000, or once they plan to (re-) pack or (re-) label GRS products.

GUIDANCE*: A trader is any entity that takes ownership of the certified products, regardless of whether they take physical possession of the products.*

A5.2d In cases where there is the possibility of differential rates of production loss between Recycled and virgin inputs, Certified Organizations shall address this through their mass balance formula for each material to show that calculations were done to account for the differences.

GUIDANCE: *In most cases the percentage loss of Recycled and virgin inputs will be very close, and no adjustments to the mass balance formula are needed. However, in some cases the loss rates are different enough to impact the final content claims, for example:*

- *If Recycled cotton is being used as an input, and the staple length is shorter than the virgin fiber, then during the combing process it is likely that most of the shorter fibers that are combed out will be the Recycled cotton. This would mean that the percentage of Recycled fiber in the output is less than the amount used in the input, and for low ratio claims, this can lead to inaccurate product claims. To address this, companies shall:*
  - *Add more Recycled fiber to their inputs, to account for the expected loss (e.g.: use 55kg of Recycled cotton fiber and 45 kg of virgin cotton fiber to create a 50% Recycled yarn), OR*
  - *Adjust the final amount being claimed to reflect the actual amount of Recycled Material in the output.*

A5.2e Buyers of the GRS product will be responsible to set any further requirements on the specific standards or requirements to which the input material shall be certified. These additional requirements are separate from the GRS and its certification process.

GUIDANCE: *Any additional requirements set by a buyer do not fall under the GRS certification. However, it might be advantageous to have the additional requirements checked during the GRS audit process. All such arrangements will be strictly between the buyer and the CB.*

Some brands might wish to identify the original source material prior to recycling. This is outside the scope of certification to the GRS, but may be added to the Transaction Certificates if requested by the brand. The arrangements should be made through the Certification Body.

Section B – Social Requirements

DESIRED OUTCOME:

Workers employed at facilities involved in the production of GRS products are protected by strong social responsibility policy.

The social requirements of the GRS apply to all operations within the Certified Organization. The GRS Social Requirements are based on the principles of the Global Social Compliance Programme. In all instances, the international labor standard, national and/or local legislation or GRS requirement that is the most stringent, shall apply to the extent that it does not place them in violation of applicable law.

Certified Organizations shall demonstrate that their working conditions are in line with the social principles in Section B2 during the annual audit. Other audits may be accepted, see *Textile Exchange Accepted Equivalent Standards*.

GUIDANCE: *Certification bodies shall confirm compliance to all criteria of this section during the annual audit. In particular, the audit shall include:*

- *Inspection of processing and storage units, toilet facilities, rest areas and other sites of the company with access for workers*
- *Interview with management and confidential interviews with workers and worker's representatives*
- *Review of personnel files, such as list of workers employed, workers' contracts, pay rolls, shift and working time protocols, age verification, and other relevant documents*

B1 – Social Policy

B1.1 Certified Organizations shall have a clear set of policies to ensure compliance with the social requirements of the GRS.

These policies shall include:

B1.1a One or more persons within the Certified Organization responsible for ensuring social compliance. It is not required that an entire position be dedicated to managing the social principles at the facility, but instead that someone has been assigned the role as part of their job responsibilities.

B1.1b Worker awareness of policies regarding the social requirements listed in Section B2.

> ***GUIDANCE:*** *Worker awareness may be demonstrated through training records or procedures around worker access to updated social policies.*

B1.2 Record Keeping

B1.2a Certified Organization shall submit a signed document that confirms their commitment to comply with the GRS Social Requirements outlined in Section B2.

B1.2b Certified Organization shall submit all relevant policy documents and training records referencing the procedures in place to protect the rights and safety of workers.

B2 – Social Requirements

B2.1 Forced, bonded, indentured and prison labor

B2.1a All work shall be conducted on a voluntary basis, and not under threat of any penalty or sanctions.

B2.1b The use of forced or compulsory labor in all its forms, including prison labor when not in accordance with ILO Convention 29, is prohibited.

B2.1c Certified Organizations shall not require workers to make deposits/financial guarantees and shall not retain identity documents (e.g., passports, identity cards, etc.), nor withhold wages outside a legal contractual agreement.

B2.1d Bonded labor is prohibited. Certified Organizations shall not use any form of bonded labor nor permit or encourage workers to incur debt through recruitment fees, fines, or other means.

B2.1e Indentured labor is prohibited. Certified Organizations shall respect the right of workers to terminate their employment after reasonable notice. Certified Organizations shall respect the right of workers to leave the workplace after their shift.

B2.2 Child Labor

B2.2a Certified Organizations shall comply with:

i. the national minimum age for employment;
ii. or the age of completion of compulsory education;
iii. or any otherwise specified exceptions;
iv. and shall not employ any person under the age of 15, whichever of these is higher. If, however, local minimum age law is set at 14 years of age in accordance with developing country exceptions under ILO Convention 138, this lower age may apply.

B2.2b Certified Organizations shall not recruit child labor nor exploit children in any way. If children are found to be working directly or indirectly for the Certified Organizations, the latter shall seek a sensitive and satisfactory solution that puts the best interests of the child first.

B2.2c Certified Organizations shall not employ young workers under 18 years of age at night, or in conditions which compromise their health, their safety or their moral integrity, and/or which harm their physical, mental, spiritual, moral or social development.

B2.3 Freedom of association and effective recognition of the right to collective bargaining

B2.3a Workers have the right to join or form trade unions or workers' associations of their own choosing and to bargain collectively, without prior authorization from Certified Organizations' management. Certified Organizations shall not interfere with, obstruct or

prevent such legitimate activities. Workers shall also have the right to join workers' associations of their own choosing. Certified Organizations shall not interfere with, obstruct or prevent such legitimate activities nor create an atmosphere that is hostile to the formation of unions and workers' association.

B2.3b Where the right to freedom of association and collective bargaining is restricted or prohibited under law, Certified Organizations shall not hinder alternative forms of independent and free workers representation and negotiation, in accordance with international labor standards.

B2.3c Certified Organizations shall not discriminate against or otherwise penalize worker representatives or trade union members because of their membership in or affiliation with a trade union, or their legitimate trade union activity, in accordance with international labor standards.

B2.3d Certified Organizations shall give worker representatives access to the workplace in order to carry out their representative functions, in accordance with international labor standards.

B2.4 Discrimination, harassment and abuse

B2.4a Certified Organizations shall respect equal opportunities in terms of recruitment, compensation, access to training, promotion, termination or retirement.

B2.4b Certified Organizations shall not engage in, support or tolerate discrimination in employment including recruitment, hiring, training, working conditions, job assignments, pay, benefits, promotions, discipline, termination or retirement on the basis of gender, age, religion, marital status, race, caste, social background, diseases, disability, pregnancy, ethnic and national origin, nationality, membership in worker organizations including unions, political affiliation, sexual orientation, or any other personal characteristics.

B2.4c Certified Organizations shall treat all workers with respect and dignity.

B2.4d Certified Organizations shall base all terms and conditions of employment on an individual's ability to do the job, not on the basis of personal characteristics or beliefs.

B2.4e Certified Organizations shall not engage in or tolerate bullying, harassment or abuse of any kind. This shall include the prohibition of physical and psychological discipline.

B2.4f Certified Organizations shall establish written disciplinary procedures and shall explain them in clear and understandable terms to their workers. All disciplinary actions shall be recorded.

B2.5 Health and safety

Provisions under Health and Safety shall be further defined to cater for specific conditions and related hazards pertaining to different industries, in accordance with the relevant applicable Health & Safety principles:

B2.5a Certified Organizations shall provide safe and clean conditions in all work and residential facilities and shall establish and follow a clear set of procedures regulating occupational health and safety. Emergency procedures shall be clearly displayed and understandable to all workers, and hazards shall be clearly marked.

GUIDANCE: *A safe and hygienic working environment shall be provided, bearing in mind the prevailing knowledge of the industry and of any specific hazards. Adequate steps shall be taken to prevent accidents and injury to health arising out of, associated with, or occurring in the course of work, by minimizing, so far as is reasonably practicable, the causes of hazards inherent in the working environment.*

B2.5b Certified Organizations shall take adequate steps to prevent accidents and injury to health arising out of, associated with, or occurring in the course of work, by minimizing, so far as is reasonably practicable, the causes of hazards inherent in the working environment. Appropriate and effective personal protective equipment shall be provided as needed.

GUIDANCE*: Appropriate protective equipment shall include adequate clothing, footwear, hearing protection and eyewear where necessary.*

B2.5c Certified Organizations shall provide access to adequate medical assistance and facilities. This shall include appropriate first aid (trained staff, adequate equipment and supplies) provided on-site. Management shall have procedures in place to give workers

access to medical assistance in case of emergency. Management shall respect national law on medical assistance and first aid. In case of a work-related accident the employer should be responsible to ensure that the worker gets medical assistance; this may mean insurance to cover potential costs.

B2.5d Certified Organizations shall provide all workers with access to clean toilet facilities and to drinkable water and, if applicable, sanitary facilities for food preparation and storage.

B2.5e Certified Organizations shall ensure that residential facilities for workers, where provided, are clean and safe.

B2.5f Certified Organizations shall assign the responsibility for health and safety to a senior management representative.

B2.5g Certified Organizations shall provide regular and recorded health and safety training to workers and management, and such training shall be repeated for all new or reassigned workers and management. Relevant training will depend on the operations and level of risk to health and safety.

B2.5h Certified Organizations shall provide adequate safeguards against fire, and shall ensure the strength, stability and safety of buildings and equipment, including residential facilities where provided.

B2.5i Certified Organizations shall undertake sufficient training of workers and management in waste management, handling and disposal of chemicals and other dangerous materials.

B2.6 Wages, benefits and terms of employment

B2.6a Work performed shall be on the basis of a recognized employment relationship established in compliance with national legislation and practice and international labor standards; whichever affords the greater protection.

B2.6b Labor-only contracting, sub-contracting or home-working arrangements, apprenticeship schemes where there is no real intent to impart skills or provide regular employment, excessive use of fixed-term contracts of employment, or any comparable arrangements shall not be used to avoid obligations to workers under labor or social security laws and regulations arising from the regular employment relationship

B2.6c Certified Organizations shall compensate their workers by providing wages, overtime pay, benefits and paid leave which respectively meet or exceed legal minimum and/or industry benchmark standards and/or collective agreements, whichever is higher. Wages and compensation for regular working hours shall meet basic needs and provide some discretionary income for workers and their families.

B2.6d Certified Organizations shall provide all workers with written and understandable information about their employment conditions, including wages, before they enter into employment; and about details of their wages for the pay period concerned each time that they are paid.

B2.6e Certified Organizations shall not make any deductions from wages that are unauthorized or not provided for by national law. Certified Organizations shall not make any deduction from wages as a disciplinary measure.

B2.6f The Certified Organizations shall provide all legally required benefits, including paid leave, to all workers.

B2.6g Certified Organizations shall always compensate all workers for all overtime at a premium rate, as required by law and, where applicable, by contractual agreement.

B2.7 Working Hours

B2.7a Certified Organizations shall set working hours that comply with national laws or benchmark industry standards or relevant international standards, whichever affords greater protection to ensure the health, safety and welfare of workers.

B2.7b Certified Organizations shall respect that the standard allowable working hours in a week are 48, excluding overtime. Workers shall not on a regular basis be required to work in excess of 48 hours per week.

B2.7c Overtime shall be voluntary, shall not exceed 12 hours per week and shall not be requested on a regular basis.

B2.7d Certified Organizations shall respect all workers right to breaks during work shifts and to at least one free day following six consecutive days worked, as well as public and annual holidays.

Section C – Environmental Requirements

DESIRED OUTCOME:
Facilities involved in the production of GRS products have strong environmental protections in place.

The environmental requirements of the GRS apply to all operations within the Certified Organization. In all instances, the national and/or local legislation or GRS requirement that is the most stringent, shall apply.

Certified Organizations shall demonstrate their compliance with the environmental requirements in Section C during an annual audit. Other audits may be accepted, see *Textile Exchange Accepted Equivalent Standards*.

C1 – Environmental Management System

C1.1 Environmental Management System

Certified Organizations shall have an environmental management system (EMS) in place. The environmental management system shall include the following:

C1.1a EMS Manual

C1.1b A designated EMS staff person (from the management level) responsible for its implementation; it is not required that an entire position be dedicated to managing the environmental management system at the facility, but instead that someone has been assigned the role as part of their job responsibilities.

C1.1c A mechanism to remain up-to-date with applicable local legal requirements.

C1.1d Basic management controls in place: a system to document, measure, and track the relevant environmental indicators (Sections C2.1, C2.2, C2.3, C2.4, and C2.5).

C1.1e Annual plan to target and reach meaningful environmental improvements across all indicators (Sections C2.1, C2.2, C2.4, and C2.5).

GUIDANCE: *When assessing whether the targets set for improvements are meaningful, Certification Bodies shall consider how advanced the Certified Organization is and how much improvement is adequate and/or realistic.*

For example, new machines to reduce water used per kg of fabric dyed and processed, an energy reduction plan to turn machines off when not in use. The Natural Resources Defense Council (NRDC)'s Clean by Design initiative has helpful guides for this approach.[6]

C1.1f Procedures and records for training of relevant staff in environmental issues mentioned in Sections C2.1, C2.2, C2.3, C2.4, and C2.5.

GUIDANCE: *See Global Social Compliance Program Environmental Implementation Guidelines, for further guidance in meeting the environmental requirements of the GRS.* [7]

C1.2 Chemical Management System

The Certified Organization shall have a Chemical Management System (CMS) in place which includes the following:

C1.2a Mechanism to monitor and meet all relevant legal requirements related to chemical management.

C1.2b A dedicated and competent staff person responsible for managing the Certified Organization's use of chemicals; it is not required that an entire position shall be dedicated to managing the chemical use at the facility, but instead that someone has been assigned the role as part of their job responsibilities.

[6] Visit the Clean by Design webpage: http://www.nrdc.org/international/cleanbydesign/.
[7] To download a copy, visit http://gscpnet.com.

C1.2c Procedures and records for training of relevant staff in chemical management, and where necessary, training to properly manage the CMS.

C1.2d Complete information on all input suppliers, including address and key contacts.

C1.2e Accurate lists of all chemical inputs used in all products; each input shall have a complete Safety Data Sheet (SDS) available in the language(s) used by workers in the facility and in English. Information shall be available for a minimum of 5 years. The SDS shall meet the guidelines found in D1.2a. The chemical supplier should be responsible for the English translations of the SDS.

GUIDANCE: *See Global Social Compliance Program Environmental Implementation Guidelines[8] for further guidance on meeting the requirements of the chemical management requirements of the GRS.*

C1.3 Record Keeping

C3.1a Certified Organization shall submit a signed document that confirms their commitment to comply with the GRS Environmental Requirements outlined in Section C2.

C3.1b Certified Organization shall submit all relevant policy documents and training records referencing the procedures in place to ensure environmental management.

C2 – Environmental Requirements

C2.1 Energy use

C2.1a The Certified Organization shall monitor and meet all relevant legal requirements related to energy use.

C2.1b Relevant, up-to-date permits shall be held and compliance maintained.

[8] To download a copy, visit http://gscpnet.com.

C2.1c There shall be tracking and record keeping of energy consumption, and on a monthly basis.

C2.1d The Certified Organization shall set and meet targets for meaningful improvements in energy use and review progress annually.

C2.2 Water use

C2.2a The Certified Organization shall monitor and meet all relevant legal requirements related to water use.

C2.2b Relevant, up-to-date permits shall be held and compliance maintained.

C2.2c Measurement and record keeping of water usage shall be undertaken on a monthly basis.

C2.2d The Certified Organization shall set and meet targets for meaningful improvements in water use and review progress annually.

C2.3 Wastewater / Effluent

C2.3a The Certified Organization shall monitor and meet all relevant legal requirements related to wastewater / effluent, with corresponding record keeping.

C2.3b Relevant, up-to-date permits shall be held and compliance maintained.

C2.3c There shall be a drainage plan in place with a general understanding of wastewater flow direction and discharge points.

C2.3d There shall be identification of the contaminants and wastewater quality parameters (listed in Appendix 4) and their flow direction.

C2.3e There shall be a system in place to ensure that wastewater receives proper treatment, either on or off-site, to meet minimum requirements before entering the water stream, see Appendix D. Where national and local requirements are more stringent, these limit values supersede the requirements listed in Appendix D. This system shall also ensure that sludge receives proper treatment and disposal. Test reports shall be made available for the certification body and meet the requirements below.

i. The report shall cover no more than 6 months.

ii. Shall be conducted by trained personnel using equipment as directed by the test guidelines.
iii. The reports shall cover all legal requirements and those set out in Appendix D.

***GUIDANCE**: If there is doubt, the CB may take samples and carry out tests. The CB may also request the site to make further tests, especially if the CB is not accredited to ISO 17025.*

C2.3f If a company elects to treat wastewater in an off-site facility, the facility shall meet the following requirements:

i. Water leaving the off-site facility shall meet minimum requirements before entering the water stream, see Appendix D. Where national and local requirements are more stringent, these limit values supersede the requirements listed in Appendix D.
ii. The facility shall have capacity adequate for the volume of wastewater sent from the Certified Organization.

C2.4 Emissions to Air

C2.4a The Certified Organization shall meet all relevant legal requirements (including monitoring) related to air emissions, with corresponding record keeping.

C2.4b Relevant, up-to-date permits shall be held and compliance maintained.

C2.4c An inventory of main point source emissions to air shall be maintained and potential for fugitive emissions shall be addressed.

C2.4d There shall be regular maintenance of any equipment containing Ozone Depleting Substances or any other potential air pollutants.

C2.4e The Certified Organization shall set and meet targets for meaningful improvements in emissions to air and review progress annually.

C2.5 Waste management

C2.5a The facility shall meet all relevant legal requirements related to waste management.

C2.5b Relevant, up-to-date permits shall be held and compliance maintained.

C2.5c Waste contractors shall have appropriate permits.

C2.5d Hazardous and non-hazardous waste shall be segregated and employee awareness and training provided on handling and segregation of wastes.

C2.5e Inventory, management, storage and transportation procedures for all waste streams shall be in place, including minimizing safety concerns to the environment and health.

C2.5f No on-site waste burning or uncontrolled waste landfilling may be undertaken.

C2.5g The Certified Organization shall look for and implement ways to minimize waste production, and increase re-use or recycling.

C2.5h The Certified Organization shall measure the amount of waste produced and keep corresponding records.

C2.5i The Certified Organization shall set and meet targets for meaningful reductions in waste production, improvements in waste management, and review progress annually.

Section D – Chemical Requirements

DESIRED OUTCOME:
Chemicals used in the production of GRS products do not introduce unnecessary harm to the environment or workers.

The GRS addresses only the use and management of chemicals in the manufacturing of GRS products. The standard does not apply to the facility as a whole, but only to the production of GRS products. The GRS does not address the chemicals that are present in the final product, as it does not control for any chemicals that might be present in the reclaimed products that are used as initial inputs in the GRS production chain.

It is the responsibility of the final sellers of GRS products to ensure that the products meet their own or nominated Restricted Substances Lists (RSL's) or any legal requirements in the country of sale.

***GUIDANCE**: If a company wants to enforce an RSL on final products, it is necessary to set testing requirements of input materials against that RSL.*

*If a company wishes to use the GRS for non-textile products, please contact **Integrity@TextileExchange.org** about an appropriate list of restricted chemicals.*

D1 – GRS Chemical Management

D1.1 GRS Product Chemical Management

In addition to the Chemical Management System (CMS) (see Section C1.2), the Certified Organization shall maintain:

D1.1a Accurate lists of all chemical inputs used in GRS products;

D1.1b Documentation for each input that demonstrates they are accepted for use in GRS products (see details in D2).

D1.1c A process to assess all chemicals used in GRS products against hazard criteria in Section D2.

D1.2 Record Keeping

D1.2a Certified Organizations shall maintain Safety Data Sheets (SDS) for each substance (or mixture) used in the production of GRS Products. The SDS shall be less than three years old and shall meet at least one of the following criteria:

- ANSI Z400.1-2004, which identifies information that shall be included to comply with the U.S. OSHA Hazard Communication Standard
- Regulation (EC) No 1907/2006 (REACH), as adapted to take into account the rules for safety data sheets of the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and the implementation of other elements of the GHS into EU legislation that were introduced by Regulation (EC) No 1272/2008 (CLP)[9]
- Globally Harmonised System of Classification and Labelling of Chemicals (GHS).[10]

D1.2b Certified Organizations shall maintain records of assessments conducted to verify conformance with the *ZDHC MRSL Conformance Guidance* document.

D2 – Restricted Chemical Substances in GRS

GRS criteria for the use of chemicals that may be used in the production of GRS products are based on the following main requirements:

1. Exclusion of inherently problematic substances that are classified as dangerous to human health and/or to the environment by REACH.
2. Exclusion of substances and mixtures classified with particular hazard codes or risk phrases.

[9] Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:353:0001:1355:en:PDF

[10] The Fourth revised edition of GHS is available at: http://www.unece.org/trans/danger/publi/ghs/ghs_rev04/04files_e.html

3. Exclusion of substances that do not comply with *ZDHC's Manufacturer's Restricted Substance List*.

D2.1 Inherently problematic substances

Any chemicals used in processing of GRS Products shall not contain Substances of Very High Concern (SVHC) as referred to in Article 57 of European Regulation (EC) No 1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), and included in Annex XIV of the Regulation.

GUIDANCE: *Substances still under review by REACH, and not yet listed on the SVHC list may be used in GRS products. These substances shall meet the requirements of D2.2 and D2.3a if applicable.*

D2.2 Exclusion of substances and mixtures classified with particular hazard codes or risk phrases

No use is allowed of substances or mixtures that are assigned (or may be assigned by the time of the application) any of the hazard statement codes and/or risk phrases (or a combination of them) listed in Table A.

GUIDANCE: *The GRS does not apply the complete list from the Globally Harmonized System of Classification and Labelling of Chemicals (GHS); it includes those that represent the highest risk of environmental and human health hazards. See Textile Exchange Derogation Policy.*

Restriction by Hazard Code is only intended to apply in cases where the ZDHC MRSL is not applicable.

Hazard Codes			Risk Phrases
H300	Acute toxicity (oral), Hazard Category 1, 2	Fatal if swallowed.	R28
H304	Aspiration hazard, Hazard Category 1	May be fatal if swallowed and enters airways	R65
H310	Acute toxicity (dermal), Hazard Category 1, 2	Fatal in contact with skin.	R27
H330	Acute toxicity (inhalation), Hazard Category 1, 2	Fatal if inhaled.	R23/26
H340	Germ cell mutagenicity, Hazard Category 1A, 1B	May cause genetic defects	R46
H341	Germ cell mutagenicity , Hazard Category 2	Suspected of causing genetic defects	R68
H350	Carcinogenicity, Hazard Category 1A, 1B	May cause cancer	R45
H350i		May cause cancer if inhaled	R49
H351	Carcinogenicity, Hazard Category 2	Suspected of causing cancer	R40
H360f	Reproductive toxicity, Hazard Category 1A, 1B	May damage fertility.	R60
H360Df		May damage the unborn child. Suspected of dam- aging fertility.	R61/62
H360FD		May damage fertility. May damage the unborn child.	R60/61/60-61
H360Fd		May damage fertility. Suspected of damaging the unborn child	R60/63
H360D		May damage the unborn child.	R61
H361f	Reproductive toxicity, Hazard Category 2	Suspected of damaging fertility	R62
H361d	Reproductive toxicity, Hazard Category 2	Suspected of damaging the unborn child	R63
H361fd	Reproductive toxicity, Hazard Category 2	Suspected of damaging fertility. Suspected of damaging the unborn child	R62/63

Hazard Codes			Risk Phrases
H362	Reproductive toxicity, Additional Category	May cause harm to breast- fed babies	R64
H370	Specific target organ toxicity — single exposure, Hazard Category 1	Causes damage to organs	R39/23/24/25/26/27/28
H371	Specific target organ toxicity — single exposure, Hazard Category 1	May cause damage to organs	R68/20; R68/21; R68/22
H372	Specific target organ toxicity — Repeated exposure, Hazard Category 1	Causes damage to organs through prolonged or repeated exposure	R48/25/24/23
H373	Specific target organ toxicity — Repeated exposure, Hazard Category 2	May cause damage to organs	R48/20/21/22
H400	Hazardous to the aquatic environment — Acute Hazard, Category 1	Very toxic to aquatic life.	R50
H410	Hazardous to the aquatic environment — Chronic Hazard, Category 1	Very toxic to aquatic life with long lasting effects	R50/53
H411	Hazardous to the aquatic environment — Chronic Hazard, Category 2	Toxic to aquatic life with long lasting effects	R51/53
EUH059; H420	Harms public health and the environment by destroying ozone in the upper atmosphere	Hazardous to the ozone layer	R59

Table A - Prohibited Hazard Codes[11] and Risk Phrases[12]

D2.3 Exclusion of substances that do not comply with the Manufacturer's Restricted Substance List (MRSL) from ZDHC.

D2.3a Chemical formulations that exceed the parameters set forth by ZDHC's MRSL may not be used in GRS products.

The MRSL is publicly available at http://www.roadmaptozero.com/, along with additional tools and resources for use.

[11] Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

[12] Directive 67/548/EEC with adjustment to REACH according to Directive 2006/121/EC and Directive 1999/45/EC as amended.

GUIDANCE: *In some cases, the ZDHC MRSL is not applicable to the material or product category being certified. In this case, compliance with both D2.1 and D2.2 is sufficient.*

Guidelines for demonstrating conformity to the ZDHC MRSL are set out in the ZDHC MRSL Conformance Guidance document. In order to be allowed in the manufacture of GRS products, chemical formulations shall meet Level 1 conformance at a minimum. Level 2 and 3 are also accepted; chemical formulations that are only classified as Registered or Self-Declared (Level 0) are not accepted.

ZDHC has provided a list of accepted list of certification standards for reference. Documentation to one of these accepted certification standards may be accepted as compliance with ZDHC MRSL (Level 1, 2, or 3 are indicated). https://www.roadmaptozero.com/gateway/chemical-module/.

The ZDHC MRSL Conformance Guidance document is available online, and is useful for understanding and attaining conformance with the ZDHC MRSL. Visit http://www.roadmaptozero.com to access all the relevant documents.

Compliance with the Chemical restrictions of the GRS does not imply compliance to a Restricted Substance List in the final product. Textile Exchange recommends the use of the AFIRM RSL to ensure consumer safety. Read more about AFIRM here: https://www.afirm-group.com/afirm-rsl/.

Appendices

Appendix A – Tools and Resources

Textile Exchange Certification Toolkit - Essential Series

The *Certification Toolkit* has been developed to provide increased clarity for brands and retailers trying to understand how to most accurately certify their products. This tool helps to address issues around why certification is important, the essential steps, understanding certificates, pricing and labeling.

The guide is free to members of Textile Exchange, or can be purchased on its own by non-members. For more information please visit http://www.textileexchange.org/content/certification-toolkit.

Questions and Additional Information

For questions or additional information about the GRS please contact: standards@textileexchange.org.

Appendix B – Reclaimed Material Supplier Agreement

This document acts as a guarantee that all of the materials listed below and being sold to [*Certified Organization]* ____ are Reclaimed Materials* that would have otherwise gone into the waste stream. It is valid for one year, effective _____.

** see Section A1 for definitions*

By signing this document, we give permission to *[Certification Body]* to visit our facility with a minimum notice of 3 days. The inspection will relate only to verification of our status as a legal organization and to confirm the description of materials as Recycled, including the designation of Pre- or Post-Consumer streams.

Signed by:

Title:

Email Address:

Phone:

On behalf of: (*Company name*)

_____ (Signature) _____ (Date)

Appendix C – Wastewater Parameter Limit Values

These limit values are based on the Foundational Level of ZDHC's Wastewater Guidelines. For more information, visit: http://www.roadmaptozero.com.

Parameters	Limit	Test Method			
		ISO	European Union	United States	China
Temperature (°C)*	15 - 35	No standard		USEPA 170.1	GB/T 13195
Total Suspended Solids (TSS):	50	ISO 11923		USEPA 160.2 APHA 2540D	GB/T 11901
Chemical Oxygen Demand (COD):	150	ISO 6060**		USEPA 410.4 APHA 5220D**	GB/T 11914**
Total-N	20	ISO 5663, ISO 29441		USEPA 351.2. APHA 4500P-J APHA 4500N-C	HJ 636, GB 11891
pH	6-9	ISO 10523	EN ISO 10523	USEPA 150.1	GB/T 6920
Color [m^{-1}] (436nm; 525; 620nm)	7; 5; 3	ISO 7887-B	-	-	-
Biological Oxygen Demand (BOD):	30	DIN EN 1899-1	EN 1899-1 (5 days)	USEPA 405.1 (5 days) APHA 5210B (5 days)	HJ 505
Ammonium-N	10	ISO 11732, ISO 7150	EN ISO 11732	USEPA 350.1 APHA 4500 NH_3-N	HJ 535, HJ 536
Total-P	3	ISO 11885, ISO 6878	EN ISO 11885	USEPA 365.4 APHA 4500P-J	GB/T 11893
AOX	5	ISO 9562	EN ISO 9563	USEPA 1650	HJ/T 83-2001
Oil and Grease	10	ISO 9377-2	EN ISO 9377-2	USEPA 1664	HJ 637
Phenol	0.5	ISO 14402	EN ISO 14402	APHA 5530 B, C&D	HJ 503
Coliform [bacteria/100 ml]	400	ISO 9308-1	EN ISO 9308-1	USEPA 9132	GB/T 5750, 12
Persistent Foam	Not visible	N/A			
Anions					
Cyanide	0.2	ISO 6703-1,2,-3. ISO 14403-1,-2		USEPA 335.2 APHA 4500-CN	HJ 484
Sulfide	0.5	ISO 10530		APHA 4500-52-D	GB/T 16489
Sulfite	2	ISO 10304-3	EN ISO 10304-3	USEPA 377.1	**
Metals					
Antimony***	0.1	ISO 11885	EN ISO 11885	USEPA 200.7.	GB7475, HJ700

Parameters	Limit	Test Method			
Chromium (total)	0.2			USEPA 200.8. USEPA 6010c. USEPA 6020a	GB7466, HJ700
Cobalt	0.05				HJ700
Copper	1				GB7475, HJ700
Nickel	0.2				GB11907, HJ700
Silver	0.1				GB11907, HJ700
Zinc	5				GB 7472, GB 7475, HJ 700
Arsenic	0.05	ISO 11885	EN ISO 11885	USEPA 200.7. USEPA 200.8. USEPA 6010c. USEPA 6020a 6020a	GB7475, HJ700
Cadmium	0.1	ISO 11885	EN ISO 11885	USEPA 200.7. USEPA 200.8. USEPA 6010c. USEPA 6020a 6020a	GB7475, HJ700
Chromium (VI)	0.05	ISO 18412	EN ISO 18412	USEPA 218.6	GB 7467
Lead	0.1	ISO 11885	EN ISO 11885	USEPA 200.7. USEPA 200.8. USEPA 6010c. USEPA 6020a 6020a	GB7475, HJ700
Mercury	0.01	ISO 12846 or ISO 17852	EN ISO 18412 or ISO 17852	USEPA 200.7. USEPA 200.8. USEPA 6010c. USEPA 6020a 6020a	HJ597

Appendix D - Approved Recycled Content

Cotton linters and other manufacturing by-products that are converted into a man-made cellulosic fiber may be considered pre-consumer recycled.

Yarn spinning waste is considered recycled if it:

1. *Cannot be directly used in the spinning cycle and*
2. *Must be reprocessed (e.g. re-opened) before it can re-enter the spinning process.*

Example: Waste from the blowroom, carding, comber, roving, and ring processing steps that is collected and put back into spinning is not considered pre-consumer recycled content.

Down collected as waste from the production stage does not qualify for certification under the GRS. Recycled down is accepted only if it is collected from the post-consumer stage.

Bonded leather is allowed to be called recycled, as long as the percentage of leather is accurate, taking into account how much of the mass is bonding agent.